Response to Office Action of March 13, 2006

Attorney Docket: NOTAR-019US

Amendments to the Claims:

1) (currently amended) A method for the production of rails and similar products with a rolling plant, wherein the plant comprises a reversible intermediate working station—(3), the intermediate working station (3)—comprising a first—(30), and—a second universal stand—(32), and a two-high edging stand (31)—placed between said first and second universal stand—(30, 32), and placed at such a distance from each other that said bar can be held simultaneously in all three of said stands during rolling operations, wherein the intermediate working station (3)—beingis able to receive a pre-rough rolled bar from an appropriate upstream rough rolling station—(2) and to deliver it, after having worked it, to a downstream finishing station—(4), placed at such a distance from said intermediate working section that, when said finishing stand works a finishing passage on said bar, said bar is not held in any of the said first universal, high edging and second universal stands—the method comprising, in the order indicated, the following operations:

a first rolling passage-(U1) in said second universal stand (32); performed with a first reduction ratio comprised between 10% and 30%, and

a first rolling passage (E1) in said high edging stand (31);

a first rolling passage (U2) in said first universal stand (30) performed with a second reduction ratio comprised between 3% and 25%, wherein the first reduction ratio is greater than the second reduction ratio,

a rolling passage in said finishing station.

characterized by the fact that said three stands (30, 31, 32) are placed at such a distance between each other that said bar can be held simultaneously in all three of said stands (30, 31, 32) during rolling operations.

- 2) (canceled)
- 3) (canceled)
- 4) (currently amended) The method according to claim 13, wherein the first said reduction ratio $(\rho 1)$ with which is performed said first rolling passage (U1) in said second universal stand (32) is equal to around 20%, and the second said reduction ratio $(\rho 2)$ with which is performed said first rolling passage (U2) in said first universal stand (30) is equal to around 10%.

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- 5) (currently amended) The method according to claim 4, wherein said first rolling passage (U1) in said second universal stand (32) is preceded by a second rolling passage (E2) in said high edging stand (31).
- 6) (currently amended) The method according to claim 5, wherein following said first rolling passage—(U1) in said second universal stand—(32) and prior to said first rolling passage—(E1) in said high edging stand—(31) is carried out on said bar for rolling a second rolling passage—(U3) in said second universal stand—(32).
- 7) (currently amended) The method according to claim 6, wherein said second rolling passage (U3) in said second universal stand (32) is performed with a third reduction ratio (p3) comprised of between around 10% and around 30%.
- 8) (currently amended) The method according to claim 7, wherein following said first rolling passage (U2) in said first universal stand (30) is performed a third rolling passage (E3) in said two-high edging stand (31) is performed.
- 9) (currently amended) The method according to claim 8, wherein immediately following said first rolling passage—(U2) in said first universal stand—(30), in said first universal stand—(30) is performed a second rolling passage—(U4).
- 10) (currently amended) The method according to claim 9, wherein said second rolling passage—(U4) carried out in said first universal stand—(30) is performed with a reduction ratio-(p4) comprised of-between around 3% and around 20%.
- 11) (currently amended) The method according to claim 10, wherein said third rolling passage (E3) in said high edging stand (31) is successive to said second rolling passage (U4) in said first universal stand (30).
- 12) (currently amended) The method according to claim 11, comprising a series of operations substantially constituted of the following rolling passages, in the sequence indicated:

said second rolling passage (E2) in said high edging stand (31) on exiting from said pre-rough rolling station (2)

said first rolling passage (U1) in said second universal stand (32)

said second rolling passage (U3) in said second universal stand (32)

said first rolling passage (E1) in said two-high edging stand (31)

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said first rolling passage (U2) in said first universal stand (30) said second rolling passage (U4) in said first universal stand (30). said third rolling passage (E3) in said two-high edging stand (31), a rolling passage (UF) in said finishing station (4).

- 13) (currently amended) A method for the production of rails and similar products through rolling comprising a finishing operation—(UF) of a bar transformed to a semi-worked rail, characterised by the fact that said finishing operation—(UF) comprises a rolling passage in a universal stand—(4) fitted with a first vertical roll—(402, 422) able to work the base—(B) of said rail, and a second vertical roll—(403, 423) able to work the head—(T) of said rail, and said first and second vertical rolls are able to roll the head—(T) and said base—(B) simultaneously.
- 14) (currently amended) The method according to claim 13, wherein said finishing operation—(UF) is performed with a reduction ratio—(ρF) comprised of between around 1% and around 15%.
- 15) (currently amended) The method according to claim 14, wherein said vertical rolls (403, 423) able to work said head (T) of said semi-worked rail is able to roll rails comprising a head (T) comprising

a central rollable surface—(T1), able to vertically support the wheels of a railway vehicle,

two lateral flanks (T2, T3) located or vertically or with a slight inclination with respect to vertical when said rail is installed, and able to supply a lateral support to said wheels of said railway vehicle,

two curved joining area-(T4, T5), each of which gradually joins said central rollable surfaces-(T1) to one of said lateral flanks-(T2, T3),

and said vertical rolls-(403, 423) able to work said head-(T) of said semi-worked rail comprising a rolling groove which in turn comprises a central zone able to deform and refinish said central rollable surfaces-(T1).

16) (currently amended) The method according to claim 15, wherein said rolling groove of said vertical rolls-(403, 423), able to work said head-(T) of said semi-worked rail,

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comprising two lateral surfaces, placed to the sides of said central zone and able to contain and conform said lateral flanks-(T2, T3) of said head-(T) of said semi-worked rail.

17) (currently amended) A rolling plant for the implementation of implementing a method according to claim 1-or 13, said plant comprising a reversible intermediate working section (3) able to receive a pre-rough rolled bar from an appropriate upstream rough rolling station (2) and to supply it, after having worked it, to a downstream finishing station (4), where in said intermediate working section (3) comprises, placed in succession along at least one rolling axis, a first universal stand (30) and a two-high edging stand (31), comprising a second universal stand (32) placed, along said at least one rolling axis, such that said two-high edging stand (31) is placed between said first and second universal stands (30, 32), characterized by the fact that where in said three stands (30, 31, 32) are placed at such distances from each other that said bar can be held simultaneously in all three of said stands (30, 31, 32) during rolling operations-wherein the finishing station comprises in turn a finishing stand placed at such a distance from said intermediate working section that, when said finishing stand works a finishing passage on said bar, said bar is not held in any of said stands of said intermediate working section.

- 18) (currently amended) A plant according to claim 17, wherein said three stands (30, 31, 32) of said intermediate working section (3) are placed one after the other, without the interposition of further rolling stands.
- 19) (canceled) A plant according to claim 18, wherein there is provided a finishing station (4) comprising in turn a finishing stand placed at such a distance from said intermediate working section (3) that, when said finishing stand works a finishing passage on said bar (UF), said bar is not held in any of the said stands (30, 31, 32) of said intermediate working section (3).